Short Circuits

Post Office Box 73
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Titusville Amateur Radio Club
T. A. R. C
Titusville, Florida

Summer Issue, 2007

Club Officers

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Club Meeting: 4th Tuesday, 7:00 PM
Titusville Public Library, 2121 S. Hopkins Ave.

"Eating Meeting" every Thursday, 5:00 – 7:00 PM at the roving restaurant. Talk in: 146.91.

Next Club Meeting: August 28, 2007

President's Report

Time really flies. It is that time again and I'm running late getting this together so I will be brief. With the hurricane in Mexico and the problems that the Midwest is experiencing I will again make the following message.

It is that time of year again when the storms can happen. Hurricane season is now open and we need to be on our toes. We should have our ducks in a row in order to prepare for the worst. Fresh batteries, food supply, go bag in case of evacuation, etc. For those who want to volunteer and help out at the shelters do not forget to take the prerequisite certifications. We have been lucky so far and we can keep our fingers crossed BUT, it is still wise to be prepared.

I look forward to seeing all of you at the meeting.

Don Spade, AD1S

Photo by K4DII

Chairman Gary Johnson (W4RBI), makes a contact at the TARC Field Day site with the neat, self-contained, portable HF station built and provided by Holland Starkey (W4MMB).

Ducie Island DXpedition

The Daily DX reports that the Ducie Island DXpedition Team, VP6DX, has been busy behind the scenes preparing for the much anticipated *February 2008 DXpedition*. It was also announced that the VP6DX team decided to extend the duration of the DXpedition.

Plans are to depart Mangareva Island, part of the Gambier Islands in French Polynesia, via ship on February 5, 2008 and head for Pitcairn Island. This trip normally takes about 36 hours. The operators will spend a few hours on Pitcairn before taking another 36 hour trip boat ride to Ducie Island; they plan to arrive at sunrise on February 9, and hope to be up and running within 24 hours. The team needs to be back on Mangareva by March 3. If all goes well, including the weather, they will have VP6 on the air for as long as 19 days. There is a slight chance of a short visit to another uninhabited island if things on Ducie slow down.

Henderson Island (also VP6, not a separate DXCC entity) is the only island on the way to and from Ducie Island.

Pitcairn Island is home to the descendants of the *H.M.S. Bounty*, which was scuttled in Pitcairn's harbor in 1789 after Fletcher Christian and most of the *Bounty's* crew mutinied against Lt. William Bligh, Master of the Bounty.

Before satellite communications became possible, most contact with the outside world for Pitcairn Islanders was by radiotelegraph. Tom Christian, VP6TC, a direct descendant of Fletcher Christian, was the island's telegrapher (and an excellent CW operator).

For New Hams: QSLs

Sending (and receiving) a QSL card to confirm a contact with another ham is one of the more enjoyable traditions of amateur radio.

Many new hams send out QSLs to every contact they work. This is a good way to quickly get the cards to earn some awards, such as Worked All Continents (WAC) and Worked All States (WAS). But QSLing by direct mail for DX contacts is expensive.

Most DX stations, especially the rare ones, get more QSL requests from US hams than they can easily afford to send. They often won't respond unless they get your card (containing properly logged QSO info); a self-addressed envelope; and an International Reply Coupon (IRC) or a couple of "green stamps" (US dollars). It can be quite expensive for DX stations to send you a QSL card.

I don't have a problem helping with the postage – I need their card a lot more than they need another K4 card from Florida! But direct mailing isn't cheap.

Air Mail postage to most overseas countries is now ninety cents. Including the price of an IRC or a couple of Green Stamps, mailing a single request for an overseas QSL card can cost more than $3.00. Still, if you really want the card, this is the quickest and most reliable way.

But, there are other, less-expensive alternatives. The ARRL operates both outgoing and incoming QSL bureaus.

Sending your DX cards overseas by the ARRL outgoing bureau (or the "buro" on the CW bands!) is easy. You can send up to tencards for $1.50, or half-a-pound for $5.00. Fees increase as more cards are sent. Cards must be sorted alphabetically and by call sign prefix. Names and addresses are notnecessary. Volunteers bundle them by country and ship them to ham associations in various countries to sort and distribute. This service is limited to ARRL members.

The ARRL's Incoming QSL service is free and does not require ARRL membership. The Incoming Bureau is organized by call district and call sign prefix. Users send SASEs to the bureau. Incoming DX cards are sorted, and when enough accumulate, mailed by volunteers to you in your SASE.

This is an inexpensive way to receive DX cards, but it isn't fast. Most incoming cards are sorted by a DX country's outgoing bureau and shipped in bulk to the United States via cargo ship. This process takes months, and often takes more than a year.

The Internet provides another way to QSL – eQSLs, sent and received by email. While eQSLs are very fast and virtually free, the ARRL and most other ham organizations do not recognize them for credit for operating awards.

Logbook of the World (LOTW) is a new ARRL service. After completing a registration process to insure accuracy and veracity, hams send electronic logs to the LOTW service. Every contact matched in a log from a DX station is credited for DXCC and other awards. You can often get credit for the QSO within moments of its completion.

A QSL card confirming a QSO is one of ham radio's most venerable traditions. It is often called the "final courtesy" of a contact with another ham.

Abell's Anecdotes, by Pike Abell, W4EPU

Some preliminary thoughts regarding dipole antennas. As everyone knows "468" is a "constant" number which, when divided by a number representing a frequency in megahertz, gives the average length in feet of a ½ wave (dipole) antenna at that frequency.

But, does everyone know what this seemingly 'magic' number, 468, is? And, from what source is it derived? If you already know, stop here. If you don't know and wish to, I will not keep you waiting. Read on…

468 feet is the average distance Radio (electromagnetic) waves travel on a metal conductor (antenna wire) in a half microsecond. Likewise, "234", the number used in computing the length of a ¼ wave vertical antenna, is the distance in feet, traveled on a metal conductor in a quarter of a microsecond. REALLY! "468" is derived as follows:

Radio waves travel (in space) at 300,000,000 meters per second. Or 300 meters per microsecond. Since we are working with ½ wave signals with dipole antennas, waves travel 150 meters in ½ microsecond. And since we work with feet, rather than meters, let's convert to feet. At approximately 3.28 feet per meter, we can convert to feet by simply multiplying 150x3.28=492. Therefore radio waves travel 492 feet in ½ microsecond in space. However, signals travel slower in metal conductors (antenna wire) by a percentile factor known as the velocity factor. The average velocity factor is 95% or 0.95. 0.95x492=468 (rounded off).

Then, as stated above, 468 feet is the average distance radio signals travel on a wire in one-half microsecond. So there you have it.

Notice I have used the word "average" several times above. That is because the velocity factor varies slightly with diameter and type of wire. That is also the reason why it is necessary to experiment with fine tuning when building a dipole antenna.

The formula, 468/F=L (F=MHz and L=Length ½ wave) will be discussed in a later issue.

73s es 88s

TARC Flea Market

For Sale (or possible trade) by original owner:

Mint condition Ten-Tec Orion (Original version) with built in antenna tuner, 1.8KHZ and 500HZ roofing filters, Heil BM-10-5 mic/headset and Heil handheld PTT switch included - $2,400. Also, Mint condition Ten-Tec Jupiter with built in antenna tuner (no microphone), $900.

Both radios pick up (try before you buy) only in East Orlando.

I am looking for an EZ WAY 40ft or 50ft tilt-over/crank up tower with the "wonder ground post"... Call Ken (NT0Y) at (407) 677-4022 in Orlando, FL (mornings) or email at alrightythenken@webtv.net

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FIRST CLASS MAIL

KU4ZO
Sherry Hughes
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TARC Local Nets

Red Eye Net:	**7.228 MHz**	**- Sunday, 0600**
Friendship Net:	**146.91 MHz**	**- Tuesday, 1830**
Mosquito Net:	**28.333 MHz**	**- Wednesday, 1900**
VIP Net:	**146.91 MHz**	**- Thursday, 1000**

Other Local Nets

ARES/RACES	**147.135 MHz**	**- Wednesday, 0900**
ARES/RACES	**147.135 MHz**	**- Wednesday, 1900 IRARC**
ARES/RACES	**147.135 MHz**	**- Wednesday, 1915**
ATV Net	**146.940 MHz**	**- Monday, 1830**

Hurricane Dean Downgraded, Hurricane Watch Net Deactivated

The remnants of Hurricane Dean, now Tropical Depression Dean, have dissipated over Mexico and the heavy rain threat has diminished. The Hurricane Watch Net (HWN) secured activation for Dean on Wednesday afternoon at 1915 UTC after commencing operations last Friday. Despite experiencing very poor propagation and noisy conditions on 20 meters, the net managed to provide the latest storm advisories from the National Hurricane Center (NHC) to amateurs and listeners in Dean's path.

The HWN was in frequent contact with the affected areas to collect real-time weather data from local hams, passing it to the NHC forecasters and informing the affected areas about what to expect next via official bulletins.

According to WX4NHC Assistant National Hurricane Center Amateur Radio station Coordinator Julio Ripoll, WD4R, "We had very poor HF conditions and the EchoLink and IRLP modes really shined and brought us the majority of the repots during Hurricane Dean. The Mexican hams also have to be applauded for making the extra efforts of relaying information from 40 meters, VHF and other local communications to the VoIP Hurricane Net. The Hurricane Forecasters at the National Hurricane Center were very appreciative of all of the ham radio surface reports, as it helped them confirm data and the ground level and helped them visualize the human perspective."